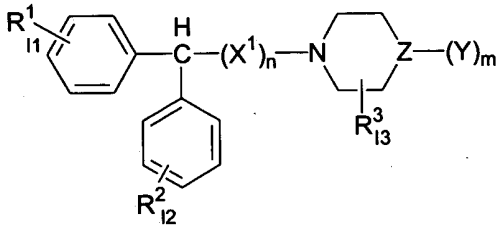
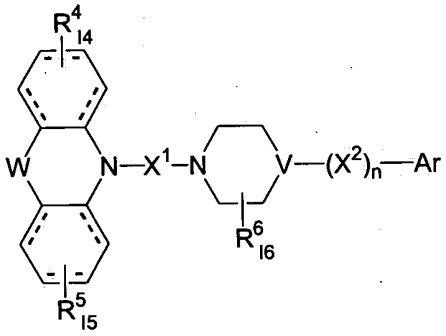
WHAT IS CLAIMED IS:

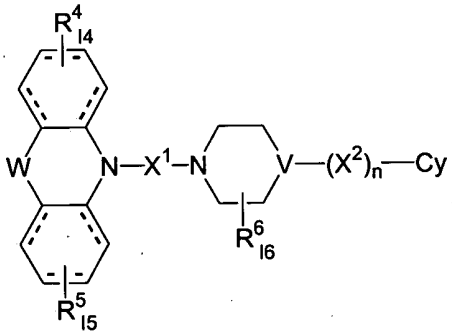
1. A method for modulating human N-type calcium channel $\alpha_{1B+SFVG}$ subunit activity, comprising administering to a subject in need thereof an effective amount of a compound of formula (I), (II), or (III):



(I)



(II)



(III)

wherein

m is 0, 1 or 2, in which when m is 0, Z is O, when m is 1, Z is N, and when m is 2, Z is C;

n is 0 or 1;

each of X^1 and X^2, independently, is a linker;

Y is H, OH, NH_2, or an organic moiety of C1-C20, optionally additionally containing 1-8 heteroatoms selected from the group consisting of N, P, O, S and halo;

V is N or CH;

W is O, S, NR or CR_2, in which R is H or alkyl (C1-C6);

Ar represents one or two substituted or unsubstituted aromatic or heteroaromatic rings;

Cy represents one or two substituted or unsubstituted aliphatic cyclic or heterocyclic moieties, or consists of one substituted or unsubstituted aliphatic cyclic or heterocyclic moiety and one substituted or unsubstituted aromatic or heteroaromatic moiety;

each of I1 and I2, independently, is 0, 1, 2, 3, 4, or 5;

I3 is 0 or 1;

each of I4 and I5, independently, is 0, 1, 2, 3, or 4;

I6 is 0 or 1;

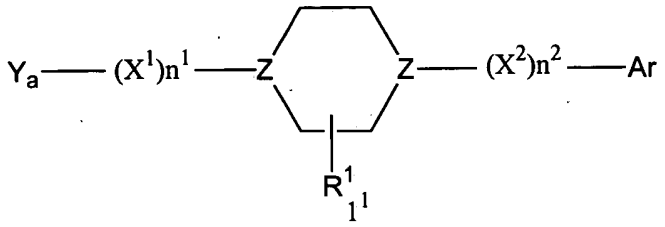
each of R^1, R^2 and R^3, independently, is alkyl (C1-C6), aryl (C6-C10) or arylalkyl (C7-C16) optionally containing 1-4 heteroatoms selected from the group consisting of halo, N, P, O, and S, or each of R^1 and R^2 may independently be halo, COOR, $CONR_2$, CF_3, CN or NO_2, in which R is H or lower alkyl (C1-C4) or alkyl (C1-C6);

each of R^4, R^5 and R^6, independently, is alkyl (C1-C6), aryl (C6-C10) or arylalkyl (C7-C16) optionally containing 1-4 heteroatoms selected from the group consisting of halo, N, P, O, and S, or may independently be halo, OR, SR, NR_2, OOCR, NROCR, COR, COOR, $CONR_2$, CF_3, CN or NO_2, wherein R is H or alkyl (C1-C6), and

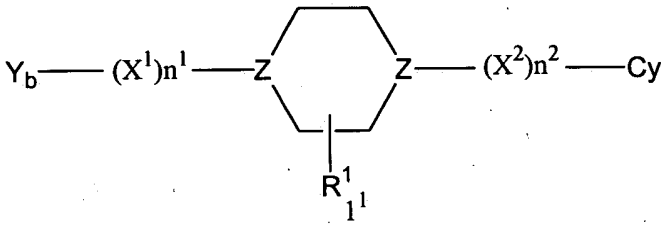
the dotted lines represent optional π-bonds; or compounds of formulae (II) or (III) where $(X^2)_n$-Ar or $(X^2)_n$-Cy is replaced by alkyl (1-6C);

with the proviso that Y is not a tropolone, a coumarin, or an antioxidant containing an aromatic group, and with the further proviso that if I3 is 0, and either I1 and I2 is 0 or 1 and if R^1 and/or R^2 represent F in the para position, Z cannot be N or C.

2. A method for modulating human N-type calcium channel $\alpha_{1B+SFVG}$ subunit activity, the method comprising administering to a subject in need thereof an effective amount of a compound of formula (IV) or (V) or a pharmaceutically acceptable salt thereof:



(IV)



(V)

wherein,

Each Z is, independently, N or CH, at least one Z being N;

n^1 is 1 and n^2 is 0 or 1;

X^1 and X^2 are linkers;

Ar represents one or two substituted or unsubstituted aromatic or heteroaromatic rings;

Cy represents one or two substituted or unsubstituted aliphatic cyclic or heterocyclic rings, or consists of one substituted or unsubstituted aliphatic cyclic or heterocyclic ring and one substituted or unsubstituted aromatic or heteroaromatic ring;

Each of Y_a and Y_b is two substituted or unsubstituted aromatic or heteroaromatic rings, or two substituted or unsubstituted aliphatic cyclic or heterocyclic rings, or consists of one substituted or unsubstituted aliphatic cyclic or heterocyclic ring and one substituted or unsubstituted aromatic or heteroaromatic ring;

1^1 is 0 or 1;

R^1 is substituted or unsubstituted alkyl (C1-C6), substituted or unsubstituted aryl (C6-C10) or substituted or unsubstituted arylalkyl (C7-C16), each of which optionally further containing 1-4 heteroatoms selected from the group consisting of halo, N, P, O, and S; or is halo, OR, SR, NR_2, OOCR, NROCR, COR, COOR, $CONR_2$, CF_3, OCF_3, CN or NO_2, wherein R is H or alkyl (C1-C6).

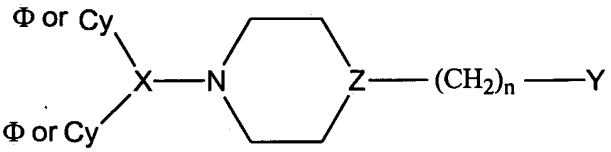
3. The method of claim 2, wherein Ar represents one or two unsubstituted phenyl moieties.

4. The method of claim 2 wherein n^2 is 1 and X^2 represents a linker which spaces Ar from Z at a distance of about 3-20 Å.

5. The method of claim 2 wherein Cy represents one or two unsubstituted cyclohexyl moieties or an unsubstituted cyclohexyl moiety and an unsubstituted phenyl moiety.

6. The method of claim 2 wherein X^1 represents a linker which spaces the Y^a and Y^b from N at a distance of about 3-20 Å.

7. A method for modulating human N-type calcium channel $\alpha_{1B+SFVG}$ subunit activity, the method comprising administering to a subject in need thereof an effective amount of a compound of formula (VI) or a pharmaceutically acceptable salt thereof:



(VI)

wherein,

Cy represents cyclohexyl;

Y is CH=CHΦ, $CH\Phi_2$, Φ or Cy;

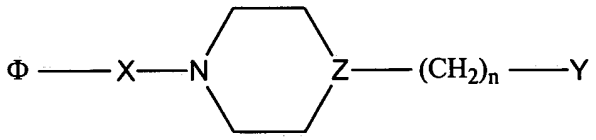
X is divalent or trivalent straight-chain alkylene (C3-C10) or divalent or trivalent straight-chain 1-alkenylene (C3-C10) optionally substituted by oxo at the C adjacent N when n is 0 and Y is Φ_2CH; and is otherwise divalent or trivalent straight-chain alkylene (C5-C10) or divalent or trivalent straight-chain 1-alkenylene (C5-C10) optionally substituted by oxo at the C adjacent N;

Z is N, NCO, $CHNCOR^1$ or $CHNR^1$, wherein R^1 is H or alkyl (C1-C6); and

n is 0-5;

wherein each Φ and Cy independently may optionally be substituted by alkyl (C1-C6) or by halo, CF_3, OCF_3, NO_2, NR_2, OR, SR, COR, COOR, $CONR_2$, NROCR or OOCR where R is H or alkyl (C1-C4), or two substituents may form a 5-7 membered ring.

8. The method of claim 7 wherein the compound has formula (VII):



(VII)

wherein X, Y, Z and n are as defined, and each Φ may optionally be substituted as set forth, in claim 1.

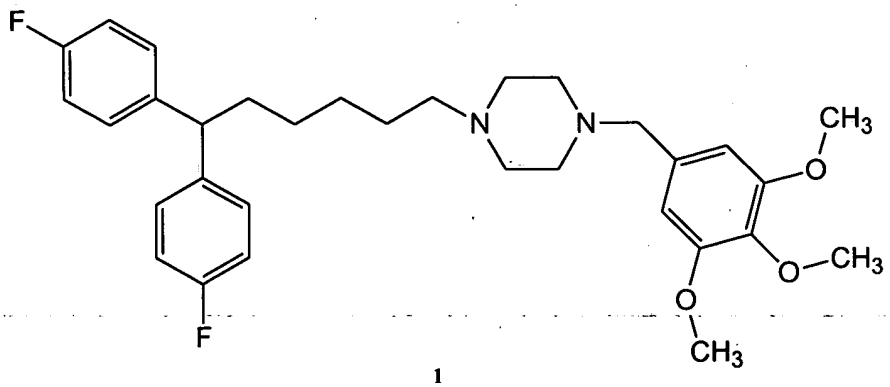
9. The method of claim 8 wherein Y is CH=CHΦ.

10. The method of claim 8 wherein Y is Cy.

11. The method of claim 8 wherein Y is Φ_2CH.

12. The method of claim 8 wherein n is 0 or 1 and Y is Φ.

13. The method of claim 7, wherein the compound is:



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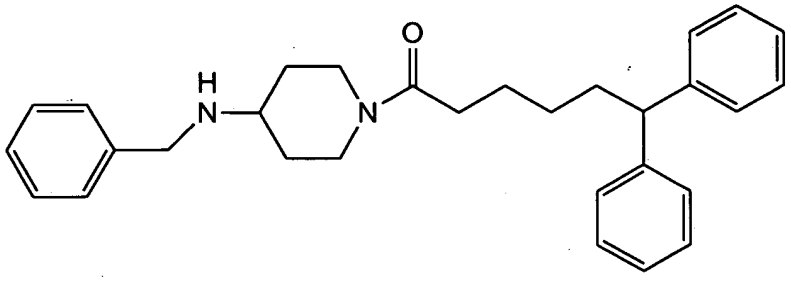
14. The method of claim 7, wherein the compound is:



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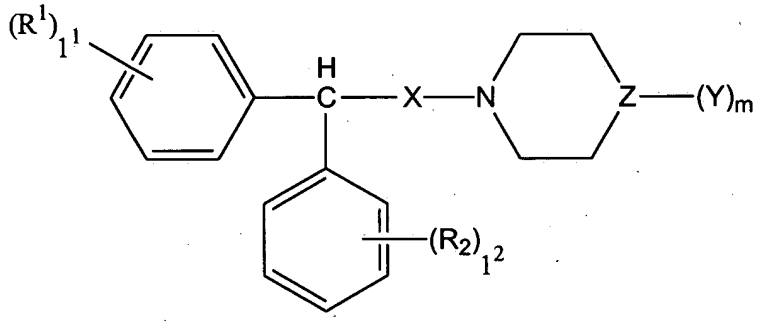
15. A method for modulating human N-type calcium channel $\alpha_{1B+SFVG}$ subunit activity, the method comprising administering to a subject in need thereof an effective amount of a compound of formula (VIII) or a pharmaceutically acceptable salt thereof:



(VIII)

wherein m is 0, 1 or 2;

wherein when m is 0, Z is O, when m is 1, Z is N, and when m is 2, Z is C;

Y is H, OH, NH_2, or an organic moiety of C1-C20, optionally additionally containing 1-8 heteroatoms selected from the group consisting of N, P, O, S and halo;

each 1^1 and 1^2 is independently 0-5;

1^3 is 0 or 1;

each of R^1, R^2 and R^3 is independently alkyl (C1-C6), aryl (C6-C10) or arylalkyl (C7-C16)

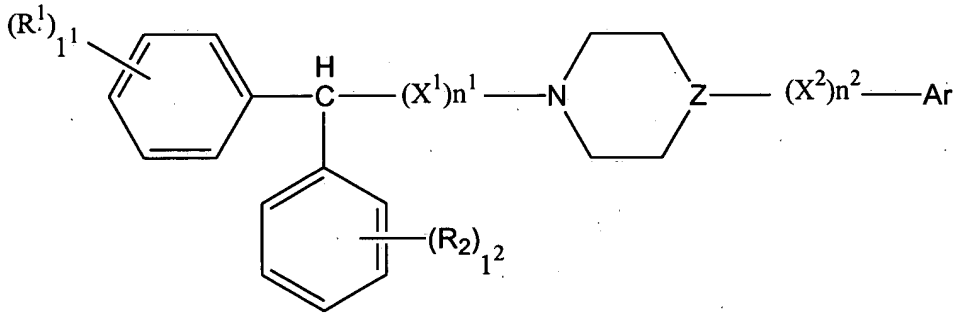
optionally containing 1-4 heteroatoms selected from the group consisting of halo, N, P, O, and S or each of R^1 and R^2 may independently be halo, COOR, $CONR_2$, CF_3, CN or NO_2, wherein R is H or lower alkyl (C1-C4) or alkyl (C1-C6);

n is 0 or 1; and

X is a linker.

16. The method of claim 15 wherein at least one of R^1, R^2 and R^3 is a halo substituent.

17. The method of claim 15, wherein the compound has formula (IX):



(IX)

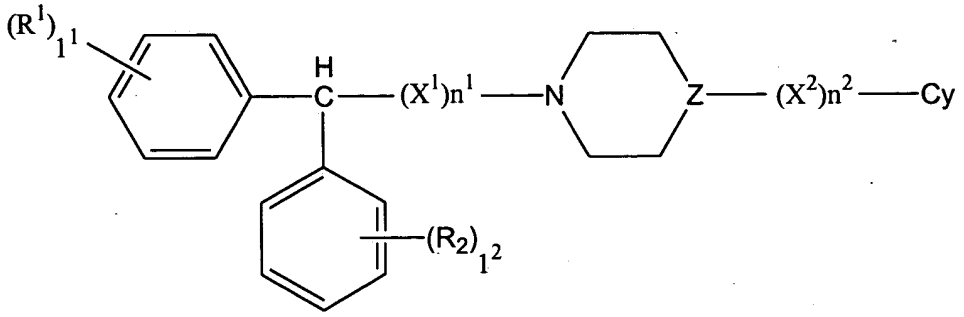
wherein Z is N or CH;

wherein each of n^1 and n^2 is independently 0 or 1;

X^1 and X^2 are linkers; and

Ar represents one or two substituted or unsubstituted aromatic or heteroaromatic rings.

18. The method of claim 15 wherein the compound has formula (X):



(X)

wherein,

Z is N or CH;

wherein each of n^1 and n^2 is independently 0 or 1;

X^1 and X^2 are linkers; and

Cy represents one or two substituted or unsubstituted aliphatic cyclic or heterocyclic moieties or consists of one substituted or unsubstituted aliphatic cyclic or heterocyclic moiety and one substituted or unsubstituted aromatic or hetroaromatic moiety.

19. A method for modulating human N-type calcium channel $\alpha_{1B+SFVG}$ subunit activity, the method comprising administering to a subject in need thereof an effective amount of a compound comprising:

a straight backbone carbon chain of C8-16C, optionally substituted with 1-15 alkyl groups (C1-C6); said chain optionally functionalized at one terminus with halo, --OR, SR, NR_2, -OOCR, -NROCR wherein R is alkyl (C1-C6), or phosphate or pyrophosphate, or functionalized wherein a terminal carbon is optionally in the form or -COOR, -$CONR_2$ or -COR wherein R is alkyl (C1-C16); and

wherein said chain may optionally contain 1-4 π-bonds or the epoxides thereof.

20. A method of making a human N-type calcium channel $\alpha_{1B+SFVG}$ modulating compound, the method comprising synthesizing a compound of formula (I), (II), or (III) in claim 1 and contacting the compound with a human N-type calcium channel $\alpha_{1B+SFVG}$ subtype.

21. The method of claim 20, further comprising measuring the modulation of calcium channel activity.

22. The method of claim 21, wherein the contacting is conducted *in vitro*.

23. A storage medium comprising chemical structure information of a compound of formula (I), (II), or (III) in claim 1 and calcium channel actvity of a human N-type calcium channel $\alpha_{1B+SFVG}$ when in contact with the compound.

24. A method of evaluating information comprising integrating the storage medium the storage medium of claim 23 with a computer system for evaluation or drug discovery or design.